

Amendments to the Claims

Claims 1-3 (Cancelled).

4. (Currently Amended) A method for completion processing, comprising:

- processing inbound TCP segments;
- performing completion processing of received TCP ACKS independently of the processing of the inbound TCP segments;
- scheduling the completion processing of each received TCP ACK using a completion coalescing list; and
- passing completion information corresponding to each received TCP ACK to a completion handler via the completion coalescing list;

wherein, in response to a retransmit operation, the completion coalescing list is selectively bypassed and the completion information is sent directly to the completion handler for completion processing.

5. (Original) The method of claim 4, wherein the completion information corresponding to each received TCP ACK is passed to the completion handler via a connection context in the completion coalescing list.

6. (Original) The method of claim 5, further comprising:

- chaining the connection context to the completion coalescing list.

7. (Original) The method of claim 6, wherein the completion context is only chained to the completion coalescing list if a connection corresponding to the connection context does not have a pending completion request.

8. (Original) The method of claim 7, wherein, if the connection corresponding to the connection context does have a pending completion request, updating information in the connection context.

9. (Original) The method of claim 8, wherein the updated information in the connection context comprises a last acknowledged sequence number (LastAckedSN).

Claims 10-12 (Cancelled).

13. (Currently Amended) The method of claim ~~42~~ 14, further comprising:  
    chaining a connection context corresponding to the RDMA Read Request to the completion coalescing list.

14. (Currently Amended) ~~The method of claim 12, further comprising:~~ A method for completion processing, comprising:

processing inbound TCP segments;

performing completion processing of received TCP ACKS independently of the processing of the inbound TCP segments, wherein the processing of the inbound TCP segments continues without waiting for the completion processing of each received TCP ACK to finish;

scheduling the completion processing of each received TCP ACK using a completion coalescing list;

processing completion of an RDMA Read Request upon reception of an RDMA Read Response using the completion coalescing list; and

selectively bypassing the completion coalescing list and sending the RDMA Read Request directly to the completion handler for completion processing.

15. (Original) The method of claim 14, wherein selectively bypassing the completion coalescing list is performed in response to a Read Queue not having sufficient free space to place the RDMA Read Request.

Claims 16-19 (Cancelled).

20. (Currently Amended) A system for completion processing, comprising:

TCP logic for processing inbound TCP segments;

a system for performing completion processing of received TCP ACKS independently of the processing of the inbound TCP segments;

a completion coalescing list for scheduling completion processing of each received TCP ACK; ~~and~~

a completion handler for completion processing of each received TCP ACK, wherein completion information corresponding to each received TCP ACK is passed to the completion handler via a connection context in a completion coalescing list; and

a transmit/retransmit handler for sending the completion information directly to the completion handler for completion processing in response to a retransmit operation requested by the TCP logic, thereby selectively bypassing the completion coalescing list.

21. (Original) The system of claim 20, wherein the TCP logic chains the connection context to the completion coalescing list.

22. (Original) The system of claim 21, wherein the TCP logic only chains the completion context to the completion coalescing list if a connection corresponding to the connection context does not have a pending completion

request.

23. (Original) The system of claim 22, wherein, if the connection corresponding to the connection context does have a pending completion request, the TCP logic updates information in the connection context.

24. (Original) The system of claim 23, wherein the updated information in the connection context comprises a last acknowledged sequence number (LastAckedSN).

Claims 25-26 (Cancelled).

27. (Currently Amended) ~~The system of claim 18, further comprising:~~ A system for completion processing, comprising:

TCP logic for processing inbound TCP segments;

a system for performing completion processing of received TCP ACKS independently of the processing of the inbound TCP segments, wherein the processing of the inbound TCP segments continues without waiting for the completion processing of each received TCP ACK to finish;

a completion coalescing list for scheduling the completion processing of each received TCP ACK;

RDMA logic for handling received RDMA messages, and for scheduling an RDMA Read Request for completion processing by chaining a connection

context corresponding to the RDMA Read Request to the completion coalescing list; and

a completion handler for completion processing of each RDMA Read Request, wherein completion information corresponding to each RDMA Read Request is passed to the completion handler via the connection context in the completion coalescing list;

wherein the RDMA logic is configured to selectively bypass the completion coalescing list and send the RDMA Read Request directly to the completion handler for completion processing.

Claims 28-29 (Cancelled).

30. (Currently Amended) The system of claim ~~29~~ 27, wherein the completion coalescing list is selectively bypassed in response to a Read Queue not having sufficient free space to place the RDMA Read Request.

31. (New) A program product stored on a computer readable medium, which when executed, provides completion processing, the computer readable medium comprising program code for:

processing inbound TCP segments;

performing completion processing of received TCP ACKS independently of the processing of the inbound TCP segments;

scheduling the completion processing of each received TCP ACK using a

completion coalescing list; and

passing completion information corresponding to each received TCP ACK to a completion handler via the completion coalescing list;

wherein, in response to a retransmit operation, the completion coalescing list is selectively bypassed and the completion information is sent directly to the completion handler for completion processing.